IN THE CLAIMS

Please amend the claims to read as follows:

Listing of Claims

1. (Currently Amended) A communication apparatus comprising:

a propagation path condition estimation section that estimates a speed of a change in a propagation path condition;

a communication quality estimation section that changes a method of estimating a communication quality of a received signal, based on the estimated speed of the change in the propagation path condition, and estimates the communication quality;

a transmission section that transmits the estimated communication quality to a communicating party;

a reception section that receives data modulated in a modulation scheme determined by the communicating party based on the estimated communication quality; and

a demodulation section that demodulates the received data, wherein:

one of a fading pitch, a delay profile, and a fluctuation period of received signal power is used as a parameter indicating the estimated speed of the change in the propagation path condition; and

the communication quality estimation section provides a longer first length of a first term for averaging the communication quality when a first estimated speed of the change in the propagation path condition is fast, and provides a second length of a second term for averaging the communication quality that is shorter than the first length when a second estimated speed of the change in the propagation path condition is slower than the first estimated speed of the change in the propagation condition, and averages information of the communication quality for the longer first length and the shorter second length to estimate the communication quality.

2. (Currently Amended) A communication apparatus comprising:

a propagation path condition estimation section that estimates a speed of a change in a propagation path condition;

a communication quality estimation section that changes a method of estimating a communication quality of a received signal, based on the estimated speed of the change in the propagation path condition, and estimates the communication quality;

a threshold setting section that sets a criterion for selecting, from a plurality of modulation schemes, a modulation scheme for use in communication with a communicating party, based on the estimated speed of the change in the propagation path condition;

a modulation scheme selection section that selects the modulation scheme based on the estimated communication quality and the set criterion; and

a transmission section that transmits information of the selected modulation scheme to the communicating party, wherein:

one of a fading pitch, a delay profile, and a fluctuation period of received signal power is used as a parameter indicating the estimated speed of the change in the propagation path condition; and

the communication quality estimation section provides a longer first length of a first term for averaging the communication quality when a first estimated speed of the change in the propagation path condition is fast, and provides a second length of a second term for averaging the communication quality that is shorter than the first length when a second estimated speed of the change in the propagation path condition is slower than the first estimated speed of the change in the propagation condition, and averages information of the communication quality for the longer first length and the shorter second length to estimate the communication quality.

3. (Cancelled)

4. (Currently Amended) A communication apparatus comprising:

a propagation path condition estimation section that estimates a speed of a change in a propagation path condition;

a communication quality estimation section that changes a method of estimating a communication quality of a received signal, based on the estimated speed of the change in the propagation path condition, and estimates the communication quality;

a transmission section that transmits the estimated communication quality to a communicating party;

a reception section that receives data modulated in a modulation scheme determined by the communicating party based on the estimated communication quality; and

a demodulation section that demodulates the received data, wherein:

the communication quality estimation section estimates the communication quality by a plurality of estimation methods, and selects the communication quality estimated by one of the plurality of estimation methods, based on the estimated speed of the change in the propagation path condition; and

the communication quality estimation section provides a longer first length of a first term for averaging the communication quality when a first estimated speed of the change in the propagation path condition is fast, and provides a second length of a second term for averaging the communication quality that is shorter than the first length when a second estimated speed of the change in the propagation path condition is slower than the first estimated speed of the change in the propagation condition, and averages information of the communication quality for the longer first length and the shorter second length to estimate the communication quality.

5. (Currently Amended) The communication apparatus according to claim 4, wherein the estimation method to estimate the communication quality is selected when a third ~~first~~ estimated speed of the change in the propagation path condition is faster than a predetermined threshold, and the communication quality estimation section estimates a longer third ~~first~~ length of a third ~~first~~ term used in the selected estimation method than a fourth ~~second~~ term used in another estimation method that is selected when a fourth ~~second~~ estimated speed of the change in the propagation path condition is slower than the predetermined threshold.

6. (Previously Presented) The communication apparatus according to claim 4, wherein the communication quality estimation section estimates a frame error rate when the estimated speed of the change in the propagation path condition is faster than a predetermined threshold, while estimating a received power to noise ratio when the estimated speed of the change in the propagation path condition is slower than the predetermined threshold.

7. (Currently Amended) A communication apparatus comprising:

a reception section that receives information of a speed of a change in a propagation path condition, the speed of the change in the propagation path ~~oath~~ condition being estimated by a communicating party;

a threshold setting section that sets a criterion for selecting, from a plurality of modulation schemes, a modulation scheme of a signal to be transmitted to the communicating party, based on the information of the estimated speed of the change in the propagation path condition;

a modulation scheme selection section that selects the modulation scheme based on the set criterion and reception quality of a signal received by the communicating party;

an adaptive modulation section that modulates data in the selected modulation scheme; and

a transmission section that transmits the modulated data by a radio signal, wherein:

one of a fading pitch, a delay profile, and a fluctuation period of received signal power is used as a parameter indicating the estimated speed of the change in the propagation path condition; and

the communicating party provides a longer first length of a first term for averaging the reception quality when a first estimated speed of the change in the propagation path condition is fast, and provides a second length of a second term for averaging the reception quality that is shorter than the first length when a second estimated speed of the change in the propagation path condition is slower than the first estimated speed of the change in the propagation condition, and averages information of the reception quality for the longer first length and the shorter second length to estimate the reception quality.

8. (Currently Amended) The communication apparatus according to claim 2, wherein the threshold setting section sets the criterion so that a first threshold for switching the modulation scheme is higher when a third ~~first~~ estimated speed of the change in the propagation path condition is fast than a second threshold for switching the modulation scheme when a fourth ~~second~~ estimated speed of the change in the propagation path condition is slow.

9. (Cancelled)

10. (Currently Amended) A communication method comprising:

at the receiving side,

estimating a speed of a change in a propagation path condition;

changing a method of estimating a communication quality of a received signal, based on the estimated speed of the change in the propagation path condition, to estimate the communication quality; and

transmitting information of the estimated communication quality and information of the estimated speed of the change in the propagation path condition, to a transmitting side;

at the transmitting side,

receiving the information of the estimated communication quality and the information of the estimated speed of the change in the propagation path condition, both transmitted from the receiving side;

setting a criterion for selecting, from a plurality of modulation schemes, a modulation scheme of a signal to be transmitted to the receiving side, based on the received information of the estimated speed of the change in the propagation path condition;

selecting the modulation scheme based on the set criterion and the received information of the estimated communication quality;

modulating data in the selected modulation scheme; and

transmitting the modulated data by a radio signal; and

at the receiving side,

receiving the modulated data transmitted from the transmitting side; and

demodulating the received modulated data, wherein:

one of a fading pitch, a delay profile, and a fluctuation period of received signal power is used as a parameter indicating the estimated speed of the change in the propagation path condition, and

the changing of the method of estimating the communication quality comprises providing a longer first length of a first term for averaging the communication quality when a first estimated speed of the change in the propagation path condition is fast, and providing a second

length of a second term for averaging the communication quality that is shorter than the first length when a second estimated speed of the change in the propagation path condition is slower than the first estimated speed of the change in the propagation condition, and averaging information of the communication quality for the longer first length and the shorter second length to estimate the communication quality.

11. (Currently amended) A communication method comprising:

at a receiving side,

estimating a speed of a change in a propagation path condition;

changing a method of estimating a communication quality of a received signal, based on the estimated speed of the change in the propagation path condition, to estimate the communication quality;

setting a criterion for selecting, from a plurality of modulation schemes, a modulation scheme of a signal that a transmitting side transmits to the receiving side, based on the estimated speed of the change in the propagation path condition;

selecting the modulation scheme based on the estimated communication quality and the set criterion; and

transmitting information of the selected modulation scheme to the transmitting side;

at the transmitting side,

receiving the information of the selected modulation scheme transmitted from the receiving side;

modulating data in the selected modulation scheme; and

transmitting the modulated data by a radio signal; and

at the receiving side,

receiving the modulated data from the transmitting side; and

demodulating the received modulated data, wherein:

one of a fading pitch, a delay profile, and a fluctuation period of received signal power is used as a parameter indicating the estimated speed of the change in the propagation path condition, and

the changing of the method of estimating the communication quality comprises providing a longer first length of a first term for averaging the communication quality when a first estimated speed of the change in the propagation path condition is fast, and providing a second length of a second term for averaging the communication quality that is shorter than the first length when a second estimated speed of the change in the propagation path condition is slower than the first estimated speed of the change in the propagation condition, and averaging information of the communication quality for the longer first length and the shorter second length to estimate the communication quality.

12. (Cancelled)